REQUEST FOR POST DOCTORAL ACADEMIC SUPPORT
PARALLEL AND DISTRIBUTED PROCESSING

Academic Support Objective:

1. Various AFIT/ENG parallel and distributed technological areas including information security, signal/image processing, and robotic vehicle swarms require continuing professional support at the class, laboratory, MS thesis, and PhD dissertation levels. These academic and practical areas are related directly to the ongoing DoD high performance computing initiative which has considerable congressional visibility. AFIT/ENG efforts cover the simulation of such applications along with emphasis on extraction of useful information from associated sensor outputs, possibly in real-time.

2. The goal is to assist AFIT graduate students in developing scalable versions of critical image/signal processing functions which pose the greatest challenge and barriers to real-time implementation on high performance computers. This generic emphasis relates directly with high performance computing, information security, robotic vehicle classes, laboratories and associated graduate research activities that are state-of-the-art. The computational environments include, Linux, UNIX and Windows operating systems on a variety of platforms, including HPC/MSRC systems, Beowulf clusters and specialized avionics multiprocessor systems.

3. This requirement is directly related to the increasing AFIT/EN faculty workload because of the larger number of graduate students. This supporting effort requires an individual with a PhD in computer science, or computer engineering, or applied mathematics. This individual should possess college teaching experience; knowledge of image and signal processing; an extensive background in software development and parallel programming. The candidate should also have the ability to use Windows, Linux, and UNIX operating systems and programming in FORTRAN, C, C++, JAVA, MPI, and CORBRA.

4. AFIT/ENG wishes to hire a post doctorate to augment our faculty in this area of study.